

Claims

1. A system for issuing identification documents to a plurality of individuals, comprising:
  - a first database, the first database storing a plurality of digitized images, each
  - 5 digitized image comprising a biometric image of an individual seeking an identification document
  - a first server in operable communication with the first database, the first server programmed to
  - send, at a predetermined time, one or more digitized images from the first
  - 10 database to a biometric recognition system, the biometric recognition system in operable communication with a second database, the second database containing biometric templates associated with individuals whose images have been previously captured;
  - receive from the biometric recognition system, for each digitized image sent, an indicator, based on the biometric searching of the second database, as to whether
  - 15 the second database contains any images of individuals who may at least partially resemble the digitized image that was sent; and
  - a workstation in operable communication with the first server, the workstation configured to permit a user to review the indicator and to make a determination as to whether the individual is authorized to be issued an identification document or to keep an
  - 20 identification document in the individual's possession.
2. The system of claim 1 wherein the digitized image is at least one of a facial, fingerprint, thumbprint, and iris image.
3. The system of claim 1 wherein the identification document is a driver's license.
4. The system of claim 1, wherein the biometric recognition system is programmed to create
- 25 a biometric template based on the digitized image received from the first server and to use that biometric template to search the second database.
5. The system of claim 1, wherein the first server is programmed to create a biometric template and provide that template to the biometric recognition system.
6. The system of claim 1, wherein the indicator comprises a list of data associated with
- 30 individuals whose images at least partially resemble the digitized image that was sent.

7. The system of claim 6 further comprising a third database in operable communication with the workstation, the third database storing at least one of images and non-image data associated with each biometric template in the second database, wherein the workstation is configured to be able to retrieve information from the third database upon request and display it to a user.
8. The system of claim 7, wherein the indicator comprises a user interface, the user interface retrieving from the third database the images of at least a portion of the images of individuals that the biometric recognition system has determined may at least partially resemble the digitized image that was sent.
9. The system of claim 8, wherein each image accessible to the workstation system is associated with at least one of additional biometric data and demographic information and wherein the user interface is operable to permit a user to do at least one of the following functions:
- visually compare the digitized image that was sent directly to an image of an individual whose data was returned in the indicator by the facial recognition search system;
  - visually compare demographic information associated with the individual whose digitized image was sent directly to demographic information of an individual whose data was returned in the indicator by the facial recognition search system;;
  - visually compare the other biometric information associated with the digitized image that was sent to other biometric information associated with an individual whose data was returned in the indicator by the facial recognition search system;
  - create a new biometric template of the digitized image that was sent and conduct a new search of the biometric recognition search system using the new biometric template;
  - perform a re-alignment of the digitized image and use the re-alignment data to conduct a new search of the biometric recognition search system;
  - capture a new image of the individual whose digitized image was sent;
  - adding a notification to a record associated with at least one of the digitized image that was sent and the data that was returned in the indicator by the biometric recognition search system, the notification providing an alert that there may be a problem with the record; and
  - selecting at least one of the images of an individual whose data was returned in

the indicator by the facial recognition search system and sending that image to the biometric recognition search system to run a search on that image.

10. The system of claim 1, further comprising a capture station configured to acquire at least one digitized image of an individual seeking an identification document and to provide the digitized image to the first server.
11. A method for screening a plurality of applicants each seeking to be issued an identification document, comprising:
- (a) storing a digitized image of each applicant in a first database;
  - (b) providing a predetermined portion of the images in the first database, at a predetermined time, to a biometric searching system, the biometric searching system comparing the digitized image of each applicant to a plurality of previously captured images of individuals stored in a third database and returning to a second database, for each applicant, an result containing a list of matches to each image, each match having a score;
  - (c) selecting from the second database those results having a score above a predetermined threshold and providing the results to a fourth database;
  - (d) providing the selected results to an investigator; and
  - (e) displaying to the investigator, upon request, information about each selected result.
12. The method of claim 11 wherein the result comprises the image from the first database that was sent to the biometric searching system and the images of the corresponding matches.
13. The method of claim 11 further comprising:
- receiving a notification from the investigator relating to at least one of the results;
  - and
  - adding a notification to a record associated with the corresponding result, the notification remaining in the record until removed by an authorized individual and being visible to other investigators until removed.
14. The method of claim 11, further comprising:
- receiving from the investigator an indicator as to one or more results that are of

interest; and

repeating steps (b) through (e) using the indicated results in place of the images in the first database.

15. A computer implemented method of creating a biometric template of an individual for facial recognition processing, comprising:

5 sending an image of the individual to a plurality of eye finding modules, each eye finding module configured to find the location of at least one eye of the individual in the image;

10 receiving locations of the at least one eye from each respective eye finding module in the plurality of eye finding modules; and

applying at least one rule to the received locations to determine the eye location to be used for creation of the biometric template.

16. The method of claim 15, wherein the predetermined rule comprises at least one or more of the following rules;

15 selecting as an eye location the average of the received eye locations;  
selecting as an eye location a weighted average of the received eye locations;  
selecting as an eye location the location that is closest to the eye location determined by a majority of the plurality of eye finding modules;

20 removing from the received eye locations any eye locations that are outside of a predetermined boundary;

selecting as an eye location an eye location that is the center of gravity of the received eye locations;

removing from the received eye locations any eye locations that do not fit known eye characteristics, and

25 removing from the received eye locations any eye locations that are not within a predetermined distance or slope from the eye locations of the other eye of the individual

17. The method of claim 15, further comprising:

determining whether the eye location to be used for creation of the biometric template is acceptable

- 30 18. A method of searching a database of biometric templates, each biometric template associated with a corresponding facial image of an individual, for an image of an

individual who substantially resembles an individual in a probe image, comprising:

receiving a probe image of an individual at a client;

determining the eye locations of the individual;

applying a predetermined rule to determine if the eye locations are acceptable;

5 if the eye locations are acceptable, creating a probe biometric template using the eye locations; and

searching a database of biometric templates using the probe biometric template.

19. A system for investigating an image of an individual, comprising:

10 a first database, the first database storing at least one digitized image, the digitized image comprising a biometric image of an individual seeking an identification document;

a second database, the second database storing a plurality of digitized images of individuals whose images have been previously captured;

15 means for determining whether any of the images in the second database match any of the images in the first database to a predetermined degree and for providing such matches an investigator, the means for determining being in operable communication with the first and second databases; and

20 means for allowing the investigator to compare information associated with the first digitized image with information associated with any of the matches, the means for allowing being in operable communication with at least a third database capable of providing the information associated with the first digitized image and information associated with any of the matches.

20. The system of claim 19, further comprising;

means for analyzing whether the means for determining used valid data in its determination.